

WHAT IS CLAIMED IS:

1. An image processing apparatus for applying image processing to multilevel image data input thereto, comprising:

5 dividing means for dividing the input multilevel image data into pixel blocks each comprising a plurality of pixels;

 conversion tables having a plurality of items of conversion data, each of which is corresponding to a
10 pixel position in each pixel block obtained by division by said dividing means; and

 conversion means for converting, by referring to said conversion tables, each item of pixel data of each pixel block obtained by division by said dividing
15 means, into data corresponding to pixel data in the pixel block;

 wherein the conversion data of each of said conversion tables has been set in such a manner that an average value of the data in each pixel block converted
20 by said conversion means, takes on a value that is based on the pixel data within the pixel block.

2. The apparatus according to claim 1, wherein the conversion data is data for converting luminance data
25 to density data.

3. The apparatus according to claim 1, wherein the conversion data is data for converting density data in accordance with image formation characteristics of an image forming apparatus that forms an image based upon the data converted by said conversion means.

4. The apparatus according to claim 1, wherein the conversion tables output the data upon having the multilevel image data input thereto; wherein the data differs depending upon the position even if the multilevel image data is same.

5. An image processing method for applying image processing to multilevel image data applied as an input, comprising:

a dividing step of dividing the input multilevel image data into pixel blocks each comprising a plurality of pixels; and

a conversion step of converting each item of pixel data of each pixel block obtained by division, by referring to conversion tables having a plurality of items of conversion data, each corresponding to each pixel position in each pixel block obtained by division at said dividing step, into data corresponding to each pixel in the block;

wherein the conversion data of each of said conversion tables has been set in such a manner that an

average value of the data in each pixel block converted at said conversion step, takes on a value that is based on a corresponding pixel data within the pixel block.

5 6. The method according to claim 5, wherein the conversion data is data for converting luminance data to density data.

10 7. The method according to claim 5, wherein the conversion data is data for converting density data in accordance with image formation characteristics of an image forming apparatus that forms an image based upon the data converted at said conversion step.

15 8. The method according to claim 5, wherein the conversion tables output the data upon having the multilevel image data input thereto as an address; wherein the data differs depending upon the position even if the address is the same.

20 9. A computer-readable storage medium storing a control program for executing the image processing set forth in claim 5.

25 10. A printing control apparatus to which multilevel image data is input for generating printing data to control an image printing apparatus, comprising:

dividing means for dividing the input multilevel image data into pixel blocks each comprising a plurality of pixels;

conversion tables having a plurality of conversion data, each of which is corresponding to a pixel position in each pixel block obtained by division by said dividing means; and

conversion means for converting, by referring to said conversion tables, each item of pixel data of each pixel block obtained by division by said dividing means, into data corresponding to pixel data in the pixel block; and

print-data generating means for generating print data, which is for being printed by said image printing apparatus, based upon the data converted by said conversion means;

wherein the conversion data of each of said conversion tables has been set in such a manner that an average value of the data in each pixel block converted by said conversion means, takes on a value that is based on the pixel data within the pixel block.

11. The apparatus according to claim 10, wherein the conversion data is data for converting luminance data to density data.

12. The apparatus according to claim 10, wherein the conversion data is data for converting density data in accordance with image formation characteristics of an image forming apparatus that forms an image based upon the data corresponding to pixel data converted by said conversion means.

13. The apparatus according to claim 10, wherein the conversion tables output the data upon having the multilevel image data input thereto; wherein the data differs depending upon the position even if the multilevel image data are the same.

14. A printing control method for inputting multilevel image data and generating print data to control an image printing apparatus, comprising:

a dividing step of dividing the input multilevel image data into pixel blocks each comprising a plurality of pixels;

a conversion step of converting each item of pixel data of each pixel block obtained by division, by referring to conversion tables having a plurality of items of conversion data, each corresponding to each pixel position in each pixel block obtained by division at said dividing step, into data corresponding to each pixel data in a pixel block; and

a print-data generating step of generating print data, which is for being printed by said image printing apparatus, based upon the data converted at said conversion step;

5 wherein the conversion data of each of said conversion tables has been set in such a manner that an average value of the data in each pixel block converted at said conversion step, takes on a value that is based on each pixel data within the pixel block.

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15. The method according to claim 14, wherein the conversion data is data for converting luminance data to density data.

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16. The method according to claim 14, wherein the conversion data is data for converting density data in accordance with image formation characteristics of an image forming apparatus that forms an image based upon the data converted at said conversion step.

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17. The method according to claim 14, wherein the conversion tables output the data having the multilevel image data input thereto as an address; wherein the data differs depending upon the position even if the address is the same.

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18. A printer driver to which multilevel image data is input for generating print data, comprising:

a module of a dividing step of dividing the input multilevel image data into pixel blocks each comprising

5 a plurality of pixels;

a module of a conversion step of converting each item of pixel data of each pixel block obtained by division, by referring to conversion tables having a plurality of items of conversion data, each

10 corresponding to each pixel position in each pixel block obtained by division by the module of said dividing step; and

a module of a print-data generating step of generating print data, which is for being printed by
15 said image printing apparatus, based upon the data converted by the module of said conversion step;

wherein the conversion data of each of said conversion tables has been set in such a manner that an average value of the data in each pixel block converted
20 by the module of said conversion step, takes on a value that is based on the pixel data within the pixel block.

19. The printer driver according to claim 18, wherein the conversion data is data for converting luminance
25 data to density data.

20. The printer driver according to claim 18, wherein
the conversion data is data for converting density data
in accordance with image formation characteristics of
an image forming apparatus that forms an image based
5 upon the data converted by the module of said
conversion step.

21. The printer driver according to claim 18, wherein
the conversion tables output the data upon having the
10 multilevel image data input thereto as an address,
wherein the data differs depending upon the position
even if the address is the same.

22. A computer-readable storage medium storing a
15 control program for executing the recording control
method set forth in claim 14.

23. A computer-readable storage medium storing the
printer driver set forth in claim 18.